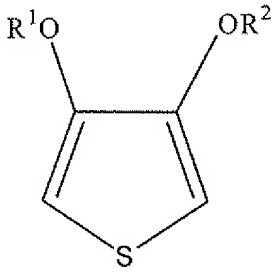
AMENDMENTS TO THE CLAIMS

Claims 1 - 6 (Cancelled)

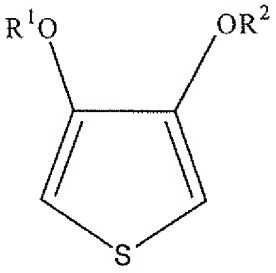
7. (Currently amended) A method for producing an aqueous dispersion containing a complex of a poly(3,4-alkylenedioxythiophene) and a polyanion comprising: polymerizing a 3,4-alkylenedioxythiophene represented by formula (1):



(1)

wherein R^1 and R^2 together form a C_{1-4}-alkylene group which is optionally substituted, wherein the polymerization is performed in the presence of the polyanion by using peroxodisulfuric acid as an oxidizing agent in an aqueous solvent and wherein the pH during polymerization is 1.5 or less and wherein said aqueous solvent is water and said polyanion is a polysulfonic acid.

8. (Currently amended): A method for producing an aqueous dispersion containing a complex of poly(3,4-dialkylenedioxythiophene) and a polyanion comprising: polymerizing a 3,4-alkylenedioxythiophene represented by formula (1):

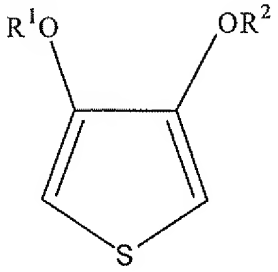


(1)

wherein R^1 and R^2 together form a C_{1-4}-alkylene group which is optionally substituted, and wherein the polymerization is performed in the presence of the polyanion by using peroxodisulfuric acid as an oxidizing agent in an aqueous solvent, in which an acid selected from the group of water-soluble inorganic acids and water-soluble organic acids is

added so as to lower pH of the resultant reaction mixture to 1.5 or less and wherein said aqueous solvent is water and said polyanion is a polysulfonic acid.

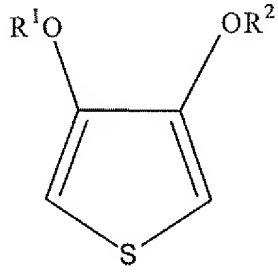
9. (Currently amended) A method for producing an aqueous dispersion containing a complex of a poly(3,4-dialkoxythiophene) and a polyanion comprising:
polymerizing a 3,4-dialkoxythiophene represented by formula (1):



(1)

wherein R^1 and R^2 are C_{1-4}-alkyl groups, wherein the polymerization is performed in the presence of the polyanion by using peroxodisulfuric acid as an oxidizing agent in an aqueous solvent and wherein the pH during polymerization is 1.5 or less and wherein said aqueous solvent is water and said polyanion is a polysulfonic acid.

10. (Currently amended) A method for producing an aqueous dispersion containing a complex of poly(3,4-dialkoxythiophene) and a polyanion comprising:
polymerizing a 3,4-dialkoxythiophene represented by formula (1):



(1)

wherein R^1 and R^2 are C_{1-4}-alkyl groups, and wherein the polymerization is performed in the presence of the polyanion by using peroxodisulfuric acid as an oxidizing agent in an aqueous solvent, in which an acid selected from the group of water-soluble inorganic acids and water-soluble organic acids is added so as to lower pH of the resultant reaction mixture

to 1.5 or less and wherein said aqueous solvent is water and said polyanion is a polysulfonic acid.

11. (Previously presented) The method as claimed in claim 7, wherein the pH during polymerization is 1.0 or less.

12. (Previously presented) The method as claimed in claim 8, wherein the pH during polymerization is 1.0 or less.

13. (Previously presented) The method as claimed in claim 9, wherein the pH during polymerization is 1.0 or less.

14. (Previously presented) The method as claimed in claim 10, wherein the pH during polymerization is 1.0 or less.

15. (Currently amended) The method as claimed in claim 8, wherein said acid is hydrochloric, sulfuric, nitric, phosphoric, p-toluenesulfonic, ~~benzenesulfonic methanesulfonic or trfluromethanesulfonic~~ benzenesulfonic, methanesulfonic or trifluoromethanesulfonic.

16. (Currently amended) The method as claimed in claim 10, wherein said acid is hydrochloric, sulfuric, nitric, phosphoric, p-toluenesulfonic, ~~benzenesulfonic methanesulfonic or trfluromethanesulfonic~~ benzenesulfonic, methanesulfonic or trifluoromethanesulfonic.

17. (Previously presented) The method as claimed in claim 7, wherein said oxidizing agent is used in an amount from 1 to 5 equivalents with respect to one mole of the thiophene.

18. (Previously presented) The method as claimed in claim 7, wherein said oxidizing agent is used in an amount from 2 to 4 equivalents with respect to one mole of the thiophene.

19. (Previously presented) The method as claimed in claim 8, wherein said oxidizing agent is used in an amount from 1 to 5 equivalents with respect to one mole of the thiophene.

20. (Previously presented) The method as claimed in claim 8, wherein said oxidizing agent

is used in an amount from 2 to 4 equivalents with respect to one mole of the thiophene.

21. (Previously presented) The method as claimed in claim 9, wherein said oxidizing agent is used in an amount from 1 to 5 equivalents with respect to one mole of the thiophene.

22. (Previously presented) The method as claimed in claim 9, wherein said oxidizing agent is used in an amount from 2 to 4 equivalents with respect to one mole of the thiophene.

23. (Previously presented) The method as claimed in claim 10, wherein said oxidizing agent is used in an amount from 1 to 5 equivalents with respect to one mole of the thiophene.

24. (Previously presented) The method as claimed in claim 10, wherein said oxidizing agent is used in an amount from 2 to 4 equivalents with respect to one mole of the thiophene.

25-26 Cancelled